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54 Black body calibration using image processing techniques.

57 Techniques for calibrating differential temperature sources (20) including the use of a calibrated infrared imaging sensor (11) having an associated calibrated temperature function that is expressed as a function of a predetermined calculated parameter indicative of the actual differential temperature of a differential temperature source. The temperature source being calibrated is thermally imaged at different indicated differential temperatures to provide

thermal images associated with the indicated temperatures, and such images are processed to define the calculated parameter as a function of indicated temperature. The calculated parameter function is substituted in the calibrated temperature function to provide a calibrated temperature function that is expressed as a function of indicated differential temperature.

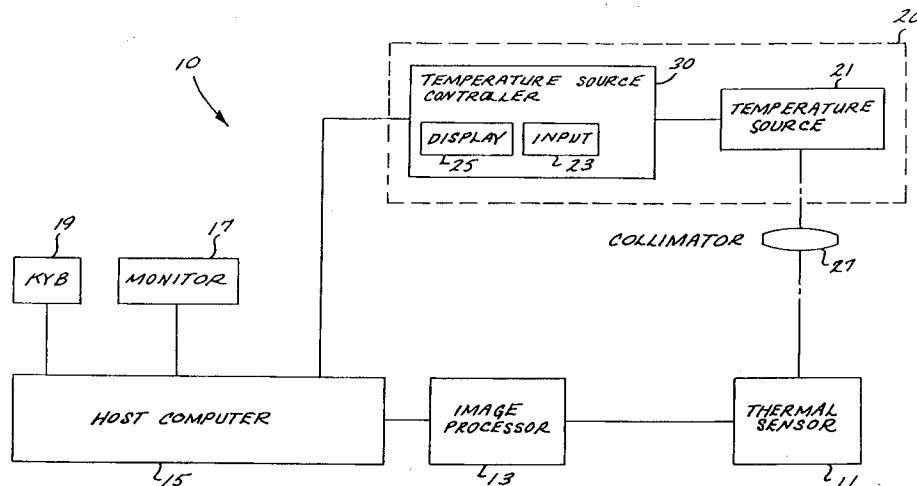


FIG. 1

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| A | 'PROCEEDINGS OF SPIE, VOL 98, ASSESSMENT OF IMAGING SYSTEMS' 1976, SPIE, BELLINGHAM, US, PAGES 96 - 104 A.R. NEWBERY ET AL.: "The laboratory evaluation of thermal imaging systems" * page 98, line 49 - line 56; figure 13 * --- | 1 | G01J5/52 G01M11/00 |
| A | T.L. WILLIAMS (ED.) 'PROCEEDINGS OF SPIE, VOL. 274, ASSESSMENT OF IMAGING SYSTEMS: VISIBLE AND INFRARED' 1981, SPIE, BELLINGHAM, US, PAGES 268 - 272 A.R. NEWBERY ET AL.: "Use of minimum resolvable temperature difference (MRTD) for the evaluation and specification of thermal imaging systems" * page 269, line 1 - line 14 * --- | 1 | TECHNICAL FIELDS SEARCHED (Int. Cl.5) G01J G01M |
| A | T.L. WILLIAMS (ED.) 'PROCEEDINGS OF SPIE, VOL. 274, ASSESSMENT OF IMAGING SYSTEMS: VISIBLE AND INFRARED' 1981, SPIE, BELLINGHAM, US, PAGES 273 - 279 T.L. WILLIAMS ET AL.: "Testing thermal imaging systems" * page 273, line 46 - page 274, line 3 * * page 275, line 44 - line 51 * --- | 1 | |
| A | I.J. SPIRO (ED.) 'PROCEEDINGS OF SPIE, VOL. 972, INFRARED TECHNOLOGY XIV' 1988, SPIE, BELLINGHAM, US, PAGES 246 - 255 A. DANIELS ET AL.: "A radiometric method of calibrating infrared sources, using the SR 5000 infrared spectroradiometer" ----- | | |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 26 MARCH 1992 | Examiner KLEIKAMP B. |
| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | | | |